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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,135	11/29/2001	Wilfred C. Kittler JR.	1330.65923/DTI 4021	7605

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EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,135

Applicant(s)

KITTLER, WILFRED C.

Examiner

Andrew T Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4,5 and 10-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on 12/6/2004 has been entered. In view of applicant's arguments, the examiner has withdrawn the 35 U.S.C. 103(a) rejection of claims 1-3 and 6-8 as being unpatentable over Nakanishi. In view of applicant's arguments, the examiner has withdrawn the 35 U.S.C. 103(a) rejection of claim 9 as being unpatentable over Nakanishi in view of Sternbergh. In view of applicant's arguments, the examiner has withdrawn the 35 U.S.C. 103(a) rejection of claim 9 as being unpatentable over Rock in view of Applicant's Disclosure in view of Sternbergh.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,432,225 to Rock in view of Applicant's Disclosure.

Regarding claims 1-3 and 6-8, Rock discloses an article of manufacture comprising a polymeric substrate, a first layer of material of high refractive index (TiO₂) deposited directly on the substrate, a first layer of material of low refractive index (SiO₂) deposited on said first layer of material of high refractive index, a second layer of material of high refractive index (TiO₂) deposited on said first layer of material of low refractive index, a second layer of material of low refractive index (SiO₂) deposited on said second layer of material of high refractive index, said

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material of high refractive index having an index of refraction equal to or greater than the index of refraction of said substrate, and said material of low refractive index having an index of refraction less than the index of refraction of said material of high refractive index (see entire document including column 3, line 13 through column 4, line 24, and the paragraph bridging columns 6 and 7).

Rock does not mention an outer layer of conductive material, but the applicant discloses that a layer of a transparent conductive oxide (TCO), such as ITO, may be applied to a polymeric substrate composite for use as electrical conductors in a variety of electronic devices (see pages 1-2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply an outer layer of TCO, such as ITO, to the article disclosed by Rock, as taught by applicant's disclosure, because the resulting article could be used as an electrical conductor in a variety of electronic devices and because the applicant discloses that reflected color is a problem with current film construction (see page 2, lines 13-21) while Rock discloses that the antireflection coating is colorless (paragraph bridging columns 2 and 3).

Regarding claim 8, the applicant discloses that the TCO layer is to be exposed to air (see page 1).

Allowable Subject Matter

4. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

The closest prior art is USPN 3,432,225 to Rock, but Rock does not teach or suggest the claimed

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thicknesses. At a design wavelength of 515 nm, Rock teaches a first high refractive index layer thickness of about 28 nm, a first low refractive index layer thickness of about 44 nm, a second high refractive index layer thickness of about 112 nm, and a second low refractive index layer thickness of about 89 nm (see column 1, lines 14-24, column 3, lines 24-39, column 5, lines 28-34, and the paragraph bridging columns 6 and 7).

Response to Arguments

6. Applicant's arguments filed 12/6/2004 have been fully considered but they are not persuasive.

The applicant admits that the specification describes prior art constructs of conductive articles of manufacture, but the applicant asserts that the specification does not teach or suggest application of an ITO layer to a high-low-high-low antireflection coating. The examiner contends that Rock, not applicant's specification, is relied upon to teach the claimed high-low-high-low coating. Applicant's admission of prior art is simply relied upon to teach the overlying conductive layer.

Although Rock does not mention depositing an ITO layer over the high-low-high-low antireflection coating, the applicant discloses that a layer of a transparent conductive oxide (TCO), such as ITO, may be applied to a polymeric substrate composite for use as electrical conductors in a variety of electronic devices (see pages 1-2 of the specification). The applicant even admits that an antireflection coating may be deposited between the TCO layer and the polymeric substrate (see page 2, lines 7-12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply an outer layer of TCO, such as ITO, to the article disclosed by Rock, because the resulting article could be used as an electrical

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conductor in a variety of electronic devices and because the applicant discloses that reflected color is a problem with current film construction (see page 2, lines 13-21) while Rock discloses that the antireflection coating is colorless (paragraph bridging columns 2 and 3).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

g-b 12/30/04
ANDREW T. PIZALI
PATENT EXAMINER

Terrel Morris
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SUPERVISORY PATENT EXAMINER
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